

Appl. No.: 10/803,393

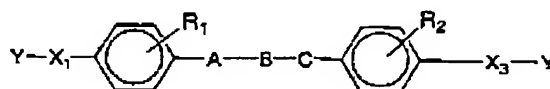
Amdt. dated 02/02/2006

Reply to Office Action of October 3, 2005

Amendments to the Claims:

Claims 1 – 14 (Cancelled)

15. (Previously Presented) A photosensitive composition for optical waveguides comprising an organic oligomer and a polymerization initiator, said organic oligomer being an oligomer represented by the following formula (5a):



(5a)

wherein R_1 and R_2 may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group or a trifluoromethyl group; X_1 , and X_3 may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkyleneoxy and oxyalkylene group; Y denotes a polymerization activating group containing acrylic or methacrylic group and A denotes a connection group selected from a linear or branched alkylene group; B denotes a connection group selected from the group consisting of a substituted or an unsubstituted phenylene; C denotes a connection group selected from alkyleneoxy.

16. (Canceled)

17. (Original) A method of forming a polymer optical waveguide pattern, comprising the steps of:

applying and drying a photosensitive composition for optical waveguides;
irradiating said resultant photosensitive composition thin film for optical waveguides with light through a mask; and

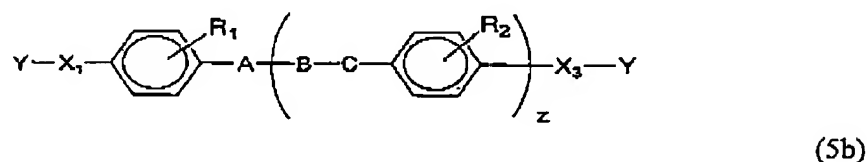
Appl. No.: 10/803,393
 Amdt. dated 02/02/2006
 Reply to Office Action of October 3, 2005

directly forming a core-ridge pattern by wet etching said photosensitive composition thin film;

wherein the photosensitive composition for optical waveguides as claimed in Claim 15 is used as said photosensitive composition for optical waveguides.

Claims 18-20 (Cancelled)

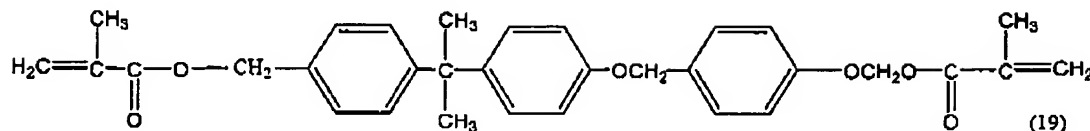
21. (Previously Presented) A photosensitive composition for optical waveguides comprising an organic oligomer and a polymerization initiator, said organic oligomer being an oligomer represented by the following formula (5b):



wherein R_1 and R_2 may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group or a trifluoromethyl group; X_1 and X_3 may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkyleneoxy and oxyalkylene group; Y denotes a polymerization activating group containing an epoxy group and A denotes a connection group selected from a linear or branched alkylene group; B denotes a connection group selected from a substituted or an unsubstituted oxyalkylene; C denotes a connection group selected from oxyalkylene, said oxyalkylene of B and said alkyleneoxy C including at least one OH group; and $z = 1$ or 2 .

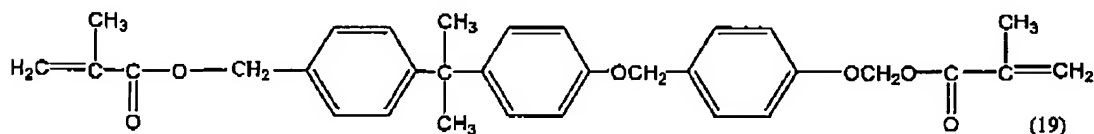
22. (Currently amended) A ~~[[The]]~~ photosensitive composition for optical waveguides comprising an organic oligomer and a polymerization initiator, said organic oligomer represented by the following formula claimed in claim 15, wherein said organic oligomer is selected from the compound having the following formula (19):

Appl. No.: 10/803,393
 Amdt. dated 02/02/2006
 Reply to Office Action of October 3, 2005



Claims 23 – 26 (Cancelled)

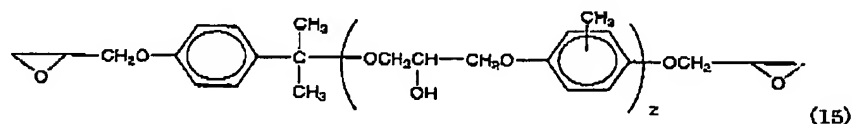
27. (Currently amended) A [[The]] method of forming a polymer optical waveguide pattern comprising the steps of:
applying and drying a photosensitive composition for optical waveguides;
irradiating said resultant photosensitive composition thin film for optical waveguides
with light through a mask; and
directly forming a core-ridge pattern by wet etching said photosensitive composition thin
film;
~~wherein the photosensitive composition for optical waveguides as claimed in claim 17,~~
~~wherein said organic oligomer is selected from the compound having~~ has the following formula
 (19):



28. (Previously Presented) A method of forming a polymer optical waveguide pattern, comprising the steps of:
 applying and drying a photosensitive composition for optical waveguides;
 irradiating said resultant photosensitive composition thin film for optical waveguides with light through a mask; and
 directly forming a core-ridge pattern by wet etching said photosensitive composition thin film;
 wherein the photosensitive composition for optical waveguides as claimed in Claim 21 is used as said photosensitive composition for optical waveguides.

Appl. No.: 10/803,393
Amdt. dated 02/02/2006
Reply to Office Action of October 3, 2005

29. (Previously Presented) The photosensitive composition for optical waveguides claimed in claim 21, wherein said organic oligomer is selected from the compound having following formula (15):



wherein $z = 1$ or 2 .

30. (Previously Presented) The method of forming a polymer optical waveguide pattern as claimed in claim 28, wherein said organic oligomer is selected from the compound having following formula (15):

